

Bob Evans Farms Receives Cash Incentive to Colocate with Cologix Through Innovative Efficiency Program

AEP Ohio's Data Center Program Validates and Rewards Energy Savings Gained from Migrating from In-house Data Center to Cologix Columbus

Bob Evans Farms Case Study



The Situation

Bob Evans Farms, LLC. owns and operates more than 550 family restaurants in 19 states, primarily in the Midwest, Mid-Atlantic and Southeast regions of the United States. Through its BEF Foods segment, the company is also a leading producer and distributor of refrigerated and frozen convenience food items under the Bob Evans TM and Owens TM brand names.

As the Columbus, Ohio-based company grew over the past decade, its data usage and information-technology needs grew with it. During this time of growth, the company found it increasingly difficult and expensive to store and optimize its IT equipment in-house.

While assessing its options, the restaurant chain and frozen-food producer identified four critical factors that, if improved, would significantly enhance the performance of its IT systems.

1. **Space and Power:** As Bob Evans' data usage increased, the company had to purchase and manage more IT equipment to store and serve all the data. But its new IT equipment was outgrowing the space and power available in the office building housing the equipment.
2. **Power and Cooling Efficiency:** Bob Evans' leadership knew that greater energy efficiency does more than help the environment; it significantly lowers monthly utility bills. In fact, according to the U.S. Small Business Administration, investing in infrastructure that improves energy efficiency regularly achieves a 30 percent return on investment.
3. **Reliability:** Bob Evans family restaurants are open beyond typical business hours, and the chain stretches across multiple time zones. At no time can Bob Evans' critical IT infrastructure go down. However, building a proprietary, purpose-built data center with the power, network access and cooling redundancies needed to achieve 100 percent uptime would be prohibitively costly.
4. **Scalability:** With hundreds of restaurants and a growing variety of brands and products, Bob Evans is a dynamic business. The company needed a flexible solution that would allow it to adjust its IT equipment's scale and configuration quickly and easily.

Outgrowing its ability to effectively maintain its IT infrastructure in-house, Bob Evans needed a data center in Ohio where it could securely colocate and achieve greater performance while benefiting from valuable energy efficiencies.

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The Solution

By colocating with Cologix Columbus, Bob Evans was able to fully tailor its IT footprint, including customizing rack space and power layout within a private cage deployment. Bob Evans also gained omnipresent security over critical equipment (Cologix Columbus maintains both SSAE-16/SOC-1 and SOC-2 Type 2 annual audits) and unmatched customer service and reliability. In addition, by colocating in a data center that is strategically situated at the convergence of the long-haul and regional fiber networks in Ohio, Bob Evans was able to optimize significant network requirements across broad network access and extensive carrier choice.

Since its 2007 commissioning, Cologix Columbus has maintained 100 percent uptime, which is largely attributed to the facility's commitment to 2(N+1) redundancies on all critical infrastructures. If a piece of equipment was to fail, redundant components are in place to take over. Moreover, an entirely independent, end-to-end system is also always active for automatic failover purposes, again with redundant components. Within this fault-tolerant architecture, even back-ups of back-ups have back-ups, all seamlessly operating without human intervention and rigorously maintained, tested and audited.

Designed to achieve LEED Certification from the United States Green Building Council (USGBC), the Columbus data center also provides its customers with valuable energy efficiencies [see sidebar for details]. Cologix Columbus' power and cooling systems work harmoniously with other efficiency measures engineered into the facility. Collectively, these measures help achieve a leading power usage effectiveness ratio (PUE). This means that a very high percentage of the power delivered to the data center is available to power Bob Evans' IT equipment, with only a small percentage of total power utilized for power conditioning or for cooling purposes.

Cologix Columbus - Engineered to Achieve LEED Certification

Facility Design: Modern data center facilities, particularly those designed for high power densities (such as 20 kW per cabinet on average across Cologix Columbus' 32,000-square-foot raised floor area), require specialized design and engineering to handle spikes in cooling requirements. To help mitigate and manage variable and potentially extreme heat loads, Cologix Columbus is designed with 27-foot interior ceiling heights, tri-level cooling and a focus on natural heat stratification.

Power Design: For its power conditioning needs, the facility uses efficient uninterruptible power supply (UPS) equipment in order to keep energy losses low and minimize waste heat. Each UPS system parallels six 200 kVA Liebert NX modules with a 1.2 megawatt paralleling switchboard. With a .98/.99 power factor and harmonic distortion of less than three percent, these UPS systems allow greater than 98% utilization of the utility and generator input power. And using three-wire 480 VAC to connect the UPS with Liebert FPC power centers further optimizes energy efficiency.

Cooling Design: For cooling, Cologix Columbus uses three cold-water loops, high-efficiency chillers and wet/dry cooling towers with variable frequency drive computer-room air handlers (CRAHs). It also uses heat recovery chillers to transfer heat to common and mechanical areas. By taking these steps, redundant cooling infrastructures account for less than 10 percent of the facility's total power draw on average.

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The Solution Continued

AEP Ohio Data Center Program

Purpose-built and operated data centers – especially large-scale, fault-tolerant colocation facilities like Cologix Columbus – offer enormous economies of scale, advanced technologies and energy efficiencies that in-house corporate operations typically can't achieve on their own. According to the U.S. Department of Energy, colocating in a data center with air-flow management, server and storage optimization, and extremely efficient power and cooling equipment can reduce electricity consumption by as much as 81 percent.

AEP Ohio, which provides power to much of central Ohio, wanted more of its customers to take advantage of these efficiencies, so it launched the AEP Ohio Data Center Program. This program helps corporate users transition into energy-efficient data centers by offering cash incentive payments. Based on the efficiencies the center offers, AEP Ohio asked Cologix Columbus to be a strategic partner for the program.

For Bob Evans, the AEP Ohio Data Center Program provided the perfect opportunity and incentive to optimize its IT systems by moving from its in-house facility to Cologix Columbus' colocation data center.

To participate in the program, AEP Ohio first assessed Bob Evans' potential energy savings from colocating in Cologix' highly energy-efficient environment. After determining Bob Evans would be an ideal candidate for the program, AEP Ohio assisted in the pre-application process and educated Bob Evans on all incentive payment options.

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The Results

After Bob Evans moved its IT equipment into Cologix Columbus, AEP Ohio verified Bob Evans' actual energy savings relative to a baseline previously established in its legacy environment. As expected, significant energy efficiencies were achieved by colocating with Cologix, and AEP Ohio released incentive payments to Bob Evans based on the annualized energy savings. As if the cost savings and incentive payments were not enough, Bob Evans also gained the comfort of a fault-tolerant and highly redundant environment designed for 100 percent reliability, and the flexibility to customize and scale its IT footprint.

Beyond optimizing for all four of the critical factors it set out to improve, Bob Evans has benefited from additional economies of scale associated with colocating within Cologix Columbus, including:

1. **Reduced Costs:** Beyond the energy efficiencies of the purpose-built colocation data center, sharing overhead costs with other businesses helps significantly reduce the company's IT costs.
2. **Locality and Expertise:** Local, knowledgeable account managers and on-site 24/7 support make expert help just a phone call away.
3. **Compliance:** Achieving audit and compliance requirements has become easier for Bob Evans, as Cologix Columbus maintains rigorous annual audits (e.g., SSAE-16/SOC-1 and SOC-2) that can be leveraged for customers' own audit and regulatory requirements. Further, as a host facility to the region's 911 infrastructure, the facility has exemption from EPO requirements (no emergency-power-off)) and maintains priority refueling for its diesel generators.
4. **Connectivity:** Direct access to over 30 national and regional networks that individually service the region from within Cologix Columbus, providing Bob Evans ample network choice and service provider redundancy, as well as opportunities to optimize network-related costs.

"With AEP Ohio and DataCenter.BZ—now Cologix Columbus—Bob Evans has partnered with hometown brands that enable us to focus on growing our business and serving our customers," said George Haller, VP IT Infrastructure and Operations Services "Our systems have become much more efficient and agile, and we're thrilled to have around-the-clock access to specialists that are focused on our dedicated environment and continued success. With the assurance that our systems will always be running, we're able to focus on continuing to serve our customers across the country."

